

## Gigabit Crossover Cable Color Sequence

### Background

Ethernet and Fast Ethernet only use two of the four conductor pairs within a data cable. In contrast, Gigabit Ethernet uses all four pairs. For a crossover cable to support Gigabit, all four pairs must be crossed over. Historically, it was common practice to only crossover the two pairs required by earlier standards. It is still common to find instructions on the Internet, that don't recognize that a 'fully functional' crossover cable, requires all four pairs to be crossed.

### TIA/EIA Wiring Standards

There are two relevant TIA/EIA wiring standards (T568A, T568B), which differ in the termination of pair 2 (orange), and pair 3 (green). T568B is used in commercial environments, whereas T568A is used in residential environments. Functionally, it doesn't matter which you choose for your crossover cable.

	<b>T568A</b>	<b>Fully Crossed</b>		<b>T568B</b>	<b>Fully Crossed</b>
1	White / Green	White / Orange	1	White / Orange	White / Green
2	Green	Orange	2	Orange	Green
3	White / Orange	White / Green	3	White / Green	White / Orange
4	Blue	White / Brown	4	Blue	White / Brown
5	White / Blue	Brown	5	White / Blue	Brown
6	Orange	Green	6	Green	Orange
7	White / Brown	Blue	7	White / Brown	Blue
8	Brown	White / Blue	8	Brown	White / Blue

*Notes: Highlighted pairs have been historically ignored, but require attention for a 'fully functional' crossover. The alternating pattern of stripe-solid-stripe is no longer maintained on the crossover end.*

